

## **RAW SEQUENCE LISTING**

**The Biotechnology Systems Branch of the Scientific and Technical  
Information Center (STIC) no errors detected.**

Application Serial Number: 10/531,870A  
Source: IFWO  
Date Processed by STIC: 10/13/2006

# ***ENTERED***



IFWO

## RAW SEQUENCE LISTING

DATE: 10/13/2006

PATENT APPLICATION: US/10/531,870A

TIME: 15:47:06

Input Set : A:\seq listing.txt

Output Set: N:\CRF4\10132006\J531870A.raw

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4 <110> APPLICANT: Fit Biotech Oyj
6 <120> TITLE OF INVENTION: Novel selection system
9 <130> FILE REFERENCE: PD53649US01
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/531,870A
C--> 12 <141> CURRENT FILING DATE: 2005-04-19
14 <160> NUMBER OF SEQ ID NOS: 29
16 <170> SOFTWARE: FastSEQ for Windows Version 4.0
18 <210> SEQ ID NO: 1
19 <211> LENGTH: 780
20 <212> TYPE: DNA
21 <213> ORGANISM: Escherichia coli
23 <400> SEQUENCE: 1
24 gtttcgtttg attggctgtg gttttataca gtcattactg cccgtaatat gccttcgcgc 60
25 catgcttacg cagatagtgt ttatccagca gcgtttgctg catatccggt aactgcggcg 120
26 ctaactgacg gcagaatatc cccatataag cgacctcttc cagcacgatg gcgttatgca 180
27 ccgcatcttc ggcatttttg ccccatgcaa acggggccgtg ggaatggacc agaacgccgg 240
28 gcatttgccg tgcctcgata ccctgttttt caaagggttc tacgatgacg ttaccgggtt 300
29 cccactcata ttcgccgttg atttctgcgt cggtcatttt gcgggtgcag ggaatggtgc 360
30 cgtagaaata gtcggcgttg gtggtgccgg ttgctggaat cgactgaccc gcctgcgccc 420
31 agatggtggc gtggcgcgag tgcgtatgca caatgccgcc aatggagggg aatgcctgat 480
32 agagcagccg gtgagttggc gtgtcggagg agggcttttt cgtaccttca accacttcac 540
33 cggtttcgat gctaaccacg accatatcgt cagcggtcac gacgctgtaa tcgacgccgg 600
34 aaggtttgat cacaagacg ccgcgctcgc gatcaacggc gctgacgttg ccccatgtga 660
35 gcgtgaccag gttgtgtttt ggcagcgcca ggttggtctc taatacctgg cgtttgagat 720
36 cttctaacat gttgactcct tcgtgccgga tgcgctttgc ttatccggcc taaaaatcg 780
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 76
41 <212> TYPE: DNA
42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Primer
47 <400> SEQUENCE: 2
48 cgccatggtt ctcagtgttg acagcttata atcgataagc tttaatgcgg tagtttagca 60
49 cgaaggagtc aacatg 76
51 <210> SEQ ID NO: 3
52 <211> LENGTH: 64
53 <212> TYPE: DNA
54 <213> ORGANISM: Artificial Sequence
56 <220> FEATURE:
57 <223> OTHER INFORMATION: Primer
59 <400> SEQUENCE: 3
60 cgccatggac tagtaaaaaa aagcccgtc attaggcggg ctgtcattac tgcccgtaat 60
61 atgc 64

```

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63 <210> SEQ ID NO: 4
64 <211> LENGTH: 81
65 <212> TYPE: DNA
66 <213> ORGANISM: Artificial Sequence
68 <220> FEATURE:
69 <223> OTHER INFORMATION: Primer
71 <400> SEQUENCE: 4
72 cgccatggac tagttctcat gtttgacagc ttatcatcga taagctttaa tgcggtagtt 60
73 tagcacgaag gagtcaacat g                                     81
75 <210> SEQ ID NO: 5
76 <211> LENGTH: 58
77 <212> TYPE: DNA
78 <213> ORGANISM: Artificial Sequence
80 <220> FEATURE:
81 <223> OTHER INFORMATION: Primer
83 <400> SEQUENCE: 5
84 cgccatggaa aaaaaagccc gctcattagg cgggctgtca ttactgcccg taatatgc 58
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 22
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial Sequence
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Primer
94 <400> SEQUENCE: 6
95 gccagggttt tcccagtcac ga                                     22
97 <210> SEQ ID NO: 7
98 <211> LENGTH: 24
99 <212> TYPE: DNA
100 <213> ORGANISM: Artificial Sequence
102 <220> FEATURE:
103 <223> OTHER INFORMATION: Primer
105 <400> SEQUENCE: 7
106 gagcggataa caatttcaca cagg                                     24
108 <210> SEQ ID NO: 8
109 <211> LENGTH: 22
110 <212> TYPE: DNA
111 <213> ORGANISM: Artificial Sequence
113 <220> FEATURE:
114 <223> OTHER INFORMATION: Primer
116 <400> SEQUENCE: 8
117 ccaactcacc ggctgctcta tc                                     22
119 <210> SEQ ID NO: 9
120 <211> LENGTH: 24
121 <212> TYPE: DNA
122 <213> ORGANISM: Artificial Sequence
124 <220> FEATURE:
125 <223> OTHER INFORMATION: Primer
127 <400> SEQUENCE: 9
128 aatgccgaag atgcggtgca taac                                     24

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Input Set : A:\seq\_listing.txt

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130 <210> SEQ ID NO: 10  
131 <211> LENGTH: 20  
132 <212> TYPE: DNA  
133 <213> ORGANISM: Artificial Sequence  
135 <220> FEATURE:  
136 <223> OTHER INFORMATION: Primer  
138 <400> SEQUENCE: 10  
139 taactgcggc gctaactgac 20  
141 <210> SEQ ID NO: 11  
142 <211> LENGTH: 20  
143 <212> TYPE: DNA  
144 <213> ORGANISM: Artificial Sequence  
146 <220> FEATURE:  
147 <223> OTHER INFORMATION: Primer  
149 <400> SEQUENCE: 11  
150 gggttgctgga atcgactgac 20  
152 <210> SEQ ID NO: 12  
153 <211> LENGTH: 66  
154 <212> TYPE: DNA  
155 <213> ORGANISM: Artificial Sequence  
157 <220> FEATURE:  
158 <223> OTHER INFORMATION: Primer  
160 <400> SEQUENCE: 12  
161 ctcaaacgcc caggtattag aagccaacct ggcgctgcc aaacacgtgt aggctggagc 60  
162 tgcttc 66  
164 <210> SEQ ID NO: 13  
165 <211> LENGTH: 60  
166 <212> TYPE: DNA  
167 <213> ORGANISM: Artificial Sequence  
169 <220> FEATURE:  
170 <223> OTHER INFORMATION: Primer  
172 <400> SEQUENCE: 13  
173 ggtttgatca caaagacgcc gcgctcgca tcaacggcgc attccgggga tccgtcgacc 60  
176 <210> SEQ ID NO: 14  
177 <211> LENGTH: 20  
178 <212> TYPE: DNA  
179 <213> ORGANISM: Artificial Sequence  
181 <220> FEATURE:  
182 <223> OTHER INFORMATION: Primer  
184 <400> SEQUENCE: 14  
185 cggcacgaag gagtcaacat 20  
187 <210> SEQ ID NO: 15  
188 <211> LENGTH: 20  
189 <212> TYPE: DNA  
190 <213> ORGANISM: Artificial Sequence  
192 <220> FEATURE:  
193 <223> OTHER INFORMATION: Primer  
195 <400> SEQUENCE: 15  
196 tgatagagca gccggtgagt 20

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Input Set : A:\seq listing.txt

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198 <210> SEQ ID NO: 16
199 <211> LENGTH: 20
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Primer
206 <400> SEQUENCE: 16
207 tcagatcctt ggcggcaaga                20
209 <210> SEQ ID NO: 17
210 <211> LENGTH: 20
211 <212> TYPE: DNA
212 <213> ORGANISM: Artificial Sequence
214 <220> FEATURE:
215 <223> OTHER INFORMATION: Primer
217 <400> SEQUENCE: 17
218 tgtaatcgac gccggaaggt                20
220 <210> SEQ ID NO: 18
221 <211> LENGTH: 1030
222 <212> TYPE: DNA
223 <213> ORGANISM: Artificial Sequence
225 <220> FEATURE:
226 <223> OTHER INFORMATION: 10E2BS-Promoter-RBS-araD-
227     terminator
229 <400> SEQUENCE: 18
230 ggatccgacc ggcaacggta cagatccgac cggcaacggg acagatccga ccggcaacgg 60
231 tcagatccga ccggcaacgg tacagatccg accggcaacg gtacagatcc gaccggcaac 120
232 ggtacagatc cgaccggcaa cgggtacagat ccgaccggga acggtacaga tccgaccggc 180
233 aacgggtacag atccgaccgg caacgggtaca gatcccccta gcgaattgac tagttctcat 240
234 gtttgacagc ttatcatcga taagctttaa tgcggtagtt tagcacgaag gagtcaacat 300
235 gttagaagat ctcaaacgcc aggtattaga agccaacctg gcgctgccaa aacacaacct 360
236 ggtcacgctc acatggggca acgtcagcgc cgttgatcgc gagcgcgggc tctttgtgat 420
237 caaaccttcc ggctctcgatt acagcgtcat gaccgctgac gatatggtcg tggttagcat 480
238 cgaaaccggg gaagtgggtg aaggtagcaa aaagccctcc tccgacacgc caactcaccg 540
239 gctgctctat caggcattcc cctccattgg cggcattgtg catacgcact cgcgccacgc 600
240 caccatctgg gcgcaggcgg gtcagtcgat tccagcaacc ggcaccaccc acgccgacta 660
241 tttctacggc accattccct gcaccgcgaa aatgaccgac gcagaaatca acggcgaata 720
242 tgagtgggaa accggtaacg tcatcgtaga aacctttgaa aaacagggta tcgatgcagc 780
243 gcaaatgccc ggcgttctgg tccattccca cggcccgttt gcatggggca aaaatgccga 840
244 agatgcggtg cataacgcca tcgtgctgga agaggtcgct tatatgggga tattctgccg 900
245 tcagttagcg ccgcagttac cggatatgca gcaaacgctg ctggataaac actatctgcg 960
246 taagcatggc gcgaaggcat attacgggca gtaatgacag cccgcctaata gagcgggctt 1020
247 ttttttccat                                1030
249 <210> SEQ ID NO: 19
250 <211> LENGTH: 696
251 <212> TYPE: DNA
252 <213> ORGANISM: Escherichia coli
254 <400> SEQUENCE: 19
255 atgtagaag atctcaaacg ccaggtatta gaagccaacc tggcgctgcc aaaacacaac 60
256 ctggtcacgc tcacatgggg caacgtcagc gccgttgatc gcgagcgcgg cgtctttgtg 120

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257 atcaaacctt cggcgctcga ttacagcgtc atgaccgctg acgatatggt cgtgggttagc 180
258 atcgaaaccg gtgaagtggg tgaaggtacg aaaaagccct cctccgacac gccaaactcac 240
259 cggctgctct atcaggcatt cccctccatt ggcggcattg tgcatacgca ctcgcgccac 300
260 gccaccatct gggcgcgagg gggtcagtcg attccagcaa ccggcaccac ccacgcccac 360
261 tattttctacg gcaccattcc ctgcaccgcg aaaatgaccg acgcagaaat caacggcgaa 420
262 tatgagtggg aaaccggtaa cgtcatcgta gaaacctttg aaaaacaggg tatcgatgca 480
263 gcgcaaatgc ccggcgttct ggtccattcc cacggcccgt ttgcatgggg caaaaatgcc 540
264 gaagatgcgg tgcataacgc catcgtgctg gaagaggctg cttatatggg gatattctgc 600
265 cgtcagttag cgccgcagtt accggatatg cagcaaacgc tgctggataa acactatctg 660
266 cgtaagcatg gcgcgaaggc atattacggg cagtaa 696
268 <210> SEQ ID NO: 20
269 <211> LENGTH: 687
270 <212> TYPE: DNA
271 <213> ORGANISM: Escherichia coli
273 <400> SEQUENCE: 20
274 atgcaaaagc taaaacagca ggtatttgaa gccaacatgg agctgccgcg ctacgggctg 60
275 gtgaccttta cctggggcaa cgtcagcgtc atcgaccgcg aacgcgggct ggtgggtgac 120
276 aagcccagcg gcgttgccca cgaaaccatg aaagcggccg atatggtggg ggttgatgac 180
277 agcggcaagg tgggtggaagg ggagtatcgc ccatcttccg aactgcgac gcatctcgaa 240
278 ctctaccgtc gttaccgctc gcttgggtggc attgtccata cccactccac tcatgccacc 300
279 gcatgggctc aggcggggct ggcatcccg gcgttaggca ccacgcacgc cgactacttc 360
280 tttggcgaca ttccgtgtac gcgcgggtta agcgaagaag aggtgcaggg cgagtatgaa 420
281 ctgaacaccg gcaaagtgat tatcgaaacg ctgggcaacg ccgagccgct gcatacgccg 480
282 ggaattgtgg tgtatcagca cgggccgttc gcctggggga aagatgctca cgatgcgggtg 540
283 cataacgcgg tggatgatga agaagtggcg aaaatggcgt ggattgcccg cggcattaac 600
284 ccacaactca atcacatcga cagcttcctg atgaataaac acttcatgcy taaacacggt 660
285 cctaacgctt attacgggca gaagtag 687
287 <210> SEQ ID NO: 21
288 <211> LENGTH: 65
289 <212> TYPE: DNA
290 <213> ORGANISM: Artificial Sequence
292 <220> FEATURE:
293 <223> OTHER INFORMATION: Primer
295 <400> SEQUENCE: 21
296 cagcaggtat ttgaagccaa catggagctg ccgcgctacg ggctgggtgta ggctggagct 60
297 gcttc 65
299 <210> SEQ ID NO: 22
300 <211> LENGTH: 66
301 <212> TYPE: DNA
302 <213> ORGANISM: Artificial Sequence
304 <220> FEATURE:
305 <223> OTHER INFORMATION: Primer
307 <400> SEQUENCE: 22
308 aaacggctgc ggaattagac cagttatctc ccgaggaagg aaattaattc cggggatccg 60
309 tcgacc 66
311 <210> SEQ ID NO: 23
312 <211> LENGTH: 21
313 <212> TYPE: DNA
314 <213> ORGANISM: Artificial Sequence

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**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/531,870A

DATE: 10/13/2006

TIME: 15:47:07

Input Set : A:\seq listing.txt

Output Set: N:\CRF4\10132006\J531870A.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application Number

L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date